

Application Serial Number 10/783,817  
Examiner Moore, Art Unit 2188

Office Action Response  
August 21, 2006

**Please Amend the Specification as Follows:**

Please amend the paragraph bridging pages 5 and 6 as follows:

The simulation tool of the present invention is generally more limited in resources than the target memory being simulated. For example, the target memory may be on the order of ~~252~~  $2^{52}$  words, where a word is sized at 36 bits. The operation of the simulation tool is thus affected by the speed of memory access. The faster data from simulated memory may be accessed, the faster a simulated instruction processor or data reference will operate. As discussed above, the extent of application banks needed to control the simulation tool will affect the operability of the simulation tool, as will the required simulation files. The size and number of files used for memory, and required to save and restore structures used to simulate the main memory and the data itself, will also affect the performance of the simulation tool.

Please amend the paragraph bridging pages 18 and 19 as follows:

If the main memory address was not within the range of one of the entries (192), the next available paging address is obtained (194). If there is no available paging address, the look-up table 144 is full and the main memory simulator 100 performs an error exit (195). If Quotient 1 (see FIG. 6) is even, the next available paging address is obtained from the ~~first file 112~~ second file 114 (see FIG. 2) (196). If Quotient 1 is odd, the next available paging address is obtained from the ~~second file 114~~ third file 115 (see FIG. 2) (196). The resulting available paging address from either the ~~first file 112 or the second file 114~~ or the third file 115 is then stored in look-up table 144 (see FIG. 4) (198) and the next available paging address in either ~~file one 112 or file two 114~~ or file three 115 is updated (198), depending upon which of the two files was used. The requested main memory address is subtracted from the base main memory address found in the look-up table 144 and the difference is added to the base and stored as the page

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address, PA (200). PA, which represents the page address of the main memory space specified, is then returned (188).

Please amend the paragraph bridging pages 19 and 20 as follows:

If the paged address is not found in the look-up table 130, 132, and 134 (208), Quotient 2 from the previous operation is evaluated to determine whether it is even or odd (210). If Quotient 2 is even, the next available paging address is fetched from the ~~first file 112~~ second file 114 (refer to FIG. 2), and if Quotient 2 is odd, the next available paging address is fetched from the ~~second file 114~~ third file 115 (210). This next available paging address from either the ~~first file 112 or the second file 114~~ or the third file 115 is then stored in the look-up table at the previous index (212). The next available paging address for either file ~~112 or 114~~ or 115, depending upon which was used, is then updated, the paging address of the memory is calculated, and the page address is added to Remainder 2 and stored in page address, PA (214). The page address is then returned (188), where the page address represents the main memory space specified.

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